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America's Security Role in a Changing World
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Global Energy Insecurity & The Department of Defense

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Widespread feeling that our energy system is in a state of crisis

“Solving our energy crisis will be one of the great projects of this generation”
Barrack Obama

“We now know that fossil fuel emissions, by retaining heat within the atmosphere, threaten disastrous changes in climate” John McCain

“There's an energy tsunami coming, and when you see it coming you better get on top of the wave, or you're going to get crushed by it” James Jones

Russia’s “temptation to use energy resources for political coercion” Robert Gates

“The future of the United States, will be threatened if nothing is done to seek solutions to the nation's energy crunch” George Bush

Why all this concern about energy?

There are three simultaneous crises

1. Global warming crisis

- Ecological catastrophe
- Diplomatic nightmare

2. High/Unstable Prices

- High prices at the pump
- Unstable investment
- Trillions to dictators
- Prices forecast to rise

3. Strategic conflict crisis

- Petro-dictatorships
- Russian energy blackmail



Why are these different crises hitting at the same time?

Solutions to one crisis mobilizes opposition from those concerned about the others...

Climate Change	High/Unstable Prices	Strategic Conflict
Raise the price of carbon	Lower the price of fuel	Ensure secure supply
Create clean energy infrastructure	Create efficient energy infrastructure	Expensive liquid NG infrastructure
Develop clean alternative liquid fuels	Develop cheap alternative liquid fuels	Develop plentiful alternative liquid fuels
Reduce demand	Reduce demand	Reduce demand
Push China on climate change	Make deals with petro-dictators	Form alliances vs. Russia

But conflicting crisis solutions only explain part of the problem



A big part of the problem is that Washington is simply moribund...

NIMBY

Interest politics

Power plays

Pork

Ideological science

Outdated fears

We are stuck and need innovative new solutions



Perhaps the biggest problem is that creating new markets is tough

- Large scale innovation has high startup costs and is financially risky
 - Asking industry to take the lead would be like asking AT&T in 1940 to invent rockets so that one day it could use communication satellites
- *“If I had asked people what they wanted, they would have said faster horses.” Henry Ford*

Congress, labs, think tanks, and interest groups are working on this but let's talk about the Department of Defense



The military has often played a role in finding solutions to big problems

- It is able to overcome startup costs and risk too large for private industry

The Manhattan Project	→	Nuclear energy
Atlas Rocket Project	→	Commercial space
ARPANET	→	Internet
Military computing	→	Personal computers

What is the Department of Defense doing about energy?



Each of the services has an energy strategy

Goals and projects include:

- Technologies and practices to reduce energy use
- Placing renewable energy generation on bases
- Developing alternative liquid fuels
- Creating “green” cultures

DOD's energy efforts may end up being some the most effective solutions to the energy crises



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